

Colorado Technology Plan

The Colorado Technology Plan provides recommended actions to help employees understand and use current technology efficiently and effectively to do their job, carry out Farm Bill requirements, provide better products and information to our agency's customers, and research and test new technology as it becomes available. The Technology Plan is part of the state business plan. The Technology Plan is maintained by the Technology Support Team, an interdisciplinary group appointed by the State Conservationist.

I. Goal: Make current technology available to employees

Continue to update and expand the technology available to our employees. Continue to develop and/or acquire data and program applications.

Ia. Objective: Provide adequate hardware.

The objective is to provide computer systems adequate to efficiently run current software. Service Center CCE support provides current computer technology and is providing replacements on a regular basis. These additional action items are recommended:

I-1. Establish a replacement plan for laser levels.	ENG	Done
I-2. Insure adequate computer systems for SCEP and STEP employees.	ITS	Done
I-3. Provide DVD burners in each Area.	ITS	09/30/06
I-4. Recommend that Copiers be networked to replace printers and possibly include scanning capability.	ITS	9/30/06
I-5. Recommendations for power converters for vehicles.	Ryan / ENG	9/30/06

Hardware items that have been accomplished but require ongoing attention include:

- Request adequate computer and technology hardware for employee needs. ITS.
- Replace analog cell phones with digital when appropriate. ADMIN

Ib. Objective: Provide adequate software

The objective is to provide software and applications necessary to support program and user needs. Service Center CCE support includes standard off the shelf office software, and specialized software, and provides upgrades on a regular schedule. These additional action items are recommended:

I-6. Insure that specialized software, such as CAD and CAD license manager, is installed on backup or shared systems.	ITS	09/30/06
I-7. Add WinPest to standard field office system installation. ITS scheduled for 3/31.	ITS	Done
I-8. Provide a list of standard Engineering programs to be installed on systems and approved for use.	ENG	Done
I-9. Recommend GIS software to allow field offices to clip raster and image data.	GIS	9/30/06

Software items that have been accomplished but require ongoing attention include:

- Insure that DNR Garmin upgrades are installed when they become available. ITS
- Evaluate, request, purchase and install project management software, as needed, to support field and project operations, RC&D and Snow. Principal Staff.

Ic. Objective: Provide data to support technology use.

The objective is to provide data to support program needs. Service Center support includes a plan to provide common data for shared use between the Service Center agencies. These additional action items are recommended:

I-10. Implement state Geodata server or storage capability.	GIS and ITS	Done
I-11. Implement an archive policy for GIS data	GIS	9/30/06
I-12. Implement a system to develop, store and manage standard drawings.	ENG	9/30/06
I-13. Inventory available GIS data.	GIS	9/30/06
I-14. Research and recommend GIS data source alternatives available from SDE/Internet services	GIS	9/30/06

Data items that have been accomplished but require ongoing attention include:

- Acquire updated Digital Ortho and NAIP imagery for Colorado and provide to field offices in compressed, mosaic format. GIS
- Digitize ongoing soils surveys and updates as they are completed. Provide all available digitized soil surveys to field offices via eFOTG and Soil Data Warehouse. Soils
- Provide standard GIS data layers, or policy and guidance on acquiring all standard GIS data specified in the Geodata standard, including standalone offices. GIS
- Work with FSA GIS to provide current, projected layers for Common Land Unit (CLU) in all service centers. State and Area Tech
- provide guidance on acquisition and use of locally available GIS data. GIS
- Investigate use of private sector and precision farming data. Tech Team
- Pursue acquisition of additional GIS data, LIDAR, satellite imagery. GIS

Id. Objective: Provide for other technology needs.

The objective is to meet other technology needs for an efficient and effective use of technology by users. These action items are recommended:

I-15. More fully implement Outlook and Exchange information sharing, and net-conferencing.	All	09/30/06
I-16. Expand use of Bluetooth and wireless technologies, when available.	State and Area Tech	09/30/06

Other items that have been accomplished but require ongoing attention include:

- scheduled network upgrades and access for point of service offices. ITS
- A training support strategy that insures adequate facilities, hardware, software and provision to install applications needed to conduct effective technology training.

II. Goal: Provide a technology support system

Develop and provide technology policies, support systems, and training for all employees, for agency standard software and applications and advanced and specialized applications.

IIa. Objective: Training

The objective is to insure that users are well trained in the use of technology and applications relevant to their job. These action items are recommended:

II-1. Provide information on GIS training availability.	State Tech	Done
II-2. Evaluate Toolkit and GIS training needs for Field Office users.	Area Tech	Done
II-3. Provide intermediate level ArcGIS training opportunity, combined with Toolkit.	RC-T, GIS	Ongoing
II-4. Provide Toolkit, GIS and GPS follow-up training for Field Office users.	Area Tech	Done
II-5. Inform users of intermediate level MS Office training opportunities through AgLearn.	ASTC-O, HR	9/30/06
II-6. Complete training and test use of MS Project for agency applications.	RC&D	09/30/06
II-7. Provide training and support in use of WinPest software.	ECS	Ongoing

Training that has been accomplished but requires ongoing attention includes:

- Follow-up training on use of GPS technology to all offices.
- Ongoing training of field office employees in current agency GIS technology related to Toolkit and program application.
- Provide a training plan as part of all agency new technology (hardware and software) implementation. Principal Staff
- Provide training for new Soils, NASIS applications. Soils
- Recommend and use AgLearn training opportunities.
- Include relevant technology components in all employee individual development plans. Supervisors
- Provide training for new employees in technology components necessary to their job. Supervisors

IIb. Objective: policy, guidance and ongoing support for technology

The objective is to insure there is adequate policy and a support system for all implemented technology applications. These action items are recommended:

II-8. Implement an electronic shared General Filing system statewide	ASTC(O), State Tech	09/30/06
II-9. Provide in-state support and customized templates for the use of MS Project software for large projects.	RC&D, State Tech	12/31/06

Support systems that have been accomplished but requires ongoing attention include:

- Provide a support plan as part of all agency new technology implementation designating area and state support specialists and a method to resolve problems. Principal Staff
- Provide local administrative access for all offices including Engineering and Soils. ITS.
- Acquire, develop and distribute templates, as needed, for specific program requirements. Principal Staff

III. Goal: Provide technology solutions that address customer needs

Establish and maintain technology applications that meet and respond to customer needs, both internal and external

IIIa. Objective: customer specific products

The objective is to develop and provide technology products to meet specific, real customer needs. These action items are recommended:

III-1. Develop a proposal for an ArcIMS application for real-time web access for water supply data	SNOW	Done
III-2. Develop web capability for product distribution and customer support.	Webmaster, State Tech	Done
III-3. Provide external customer presentations regarding agency customer technology systems and capability.	PS and Tech Team	12/31/06
III-4. Inform internal customers of current Technology topics through Colorado Connections newsletter.	Tech Team and PAS	ongoing
III-5. Demonstrate and inform employees about available technology at staff meetings.	State and Area Tech	09/30/06

Customer products that are in place but require ongoing attention include:

- A regular (annual) survey of internal customer needs. Technology Support Committee

IIIb. Objective: technology relationships with partners

The objective is to work with external customers (conservation partners) on the use, development, and understanding of each others technology applications. These action items are recommended:

III-6. Provide presentations to partnership groups regarding agency customer technology systems and capability.	PS and State Tech	12/31/06
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Relationships that are in place but require ongoing attention include:

- Web page links to relevant conservation information provided by partners. Webmaster

- Pursue and support technology and data sharing agreements at local field levels. Area and District Conservationists
- Pursue, support and/or lead technology and data sharing agreements at the state level. GIS and State Tech

IV. Objective: Develop and adapt emerging technologies

Research and test new field applications and emerging technologies. Implement or make available tested and proven technology. These action items are recommended:

- Field test hand-held and portable equipment alternatives for data collection and processing for conservation planning and applications, soil survey, CNMP, etc.

IV-1. Test and implement Bluetooth for mobile devices.	State and Area Tech	Done
IV-2. Provide information on mobile device application for users	State Tech	Done
IV-3. Test tablet technology for use in meetings.	RC&D	12/31/06
IV-4. Expanded field test use of tablets for data collection.	Area Tech, Soils	12/31/06
IV-5. Investigate new tablet alternative, specifically Origami UMPC	State Tech	9/30/06

- Develop applications that can be used with hand held data collection devices.

IV-6. Integrate GPS with digital camera technology, GPS Photo-Link	Area 3, Soils	9/30/06
IV-7. Research and develop applications for hand held technology	State Tech	9/30/06
IV-8. Evaluate techniques to pre-map and update soil survey through remote sensing, using 3D mapper.	Soils	9/30/06

- Continue to implement modern GIS technology

IV-9. Test use of LIDAR data for GIS and CAD applications	State Tech / GIS/ENG	12/30/06
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New technology that has been addressed but requires ongoing attention includes:

- Develop and implement EM technology. Soils, ECS
- Evaluate new engineering applications, adapt and implement as appropriate. ENG
- Research, test and implement cross discipline data sharing and integration.